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3 UNITED STATES GOVERNMENT

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5 NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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7 SPEECH BY DR. BEGGS

8 NASA ADMINISTRATION

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10 SEPTEMBER 2, 1981

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23 (Transcribed from a tape provided by the Agency.)  
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S P E E C H

MODERATOR: Good morning.

It's my pleasure this morning to introduce to you the new NASA Administrator. Jim Beggs became the sixth NASA Administrator on July 10th, when he was sworn in by the Vice President.

Mr. Beggs came to NASA from General Dynamics, where he was Executive Vice President for Aerospace.

He's not a newcomer, though to Government. He was actually with NASA back in '68 and '69, as head of what was then OART, which is now OAST.

And after leaving NASA in '69, he went over the the Department of Transportation where he was Under Secretary for four years.

Jim is a native of Pennsylvania. A graduate of the Naval Academy, as well as a Master's Degree from Harvard.

When he finishes his prepared remarks this morning, he will take your questions. Wait until you get a mike, though, so that everybody else can hear the question.

Ladies and gentlemen, Jim Beggs.

AUDIENCE: (Applause.)

DR. BEGGS: Thank you, Don.

It's nice to be here. And it's nice to be back

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1 with NASA.

2 It has been about 12 years since I spent all  
3 too short a tour with the agency. And a great deal has  
4 happened since then. And I suppose that in a sense these  
5 are somewhat parlous times.

6 As my favorite author, Shakespeare, once wrote,  
7 "The web of our life is a mingled yarn, good and ill to-  
8 gether." And these are both good days and they are ill  
9 days.

10 They are good again in that, if we look at the  
11 public opinion polls, which reflect how the public feels  
12 about the space program, and the aeronautics program, and  
13 all the other good things that we do in this organiza-  
14 tion, the public support for that program is the highest  
15 that it has ever been. And that's the good news.

16 In fact, it is higher today than it was during  
17 the Apollo days, if you believe the polls that have been  
18 taken over the past six or eight months, they suggest  
19 that over 40 percent of the American people believe that  
20 more money should be dedicated to space and aeronautics.  
21 And I think, roughly, 60 percent of the American public  
22 believes that the spending should continue at least at  
23 the present rate.

24 And that is a big come back from where it was.  
25 As a matter of fact, just about three short years ago a

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1 similar poll would indicate that less than 30 percent of  
2 the public believed that we should continue to spend the  
3 same amount of money. So we've doubled that in the last  
4 three years, which is a tremendous comeback.

5 A lot of that, of course, is due to the first  
6 successful flight of the shuttle. A lot of it is also  
7 due to the greater, I think, perception that this country  
8 has been falling behind in many areas, particularly in  
9 those areas in which the Nation has take great pride.  
10 And they are coming to the realization that it is import-  
11 ant to maintain a sustained effort in order that we main-  
12 tain our preeminent position in the world in both space  
13 and aeronautics.

14 The bad side, the ill of our times, is that we  
15 are living in a very, very constrained economic situation,  
16 both at the Federal level and, of course, in our country.

17 The situation is such that with inflation run-  
18 ning out of control there is a general feeling amongst  
19 the public that public expenditures must be constrained.  
20 And that, of course, does have its affect on Federal bud-  
21 gets in a marked way. And, of course, the research and  
22 development activity, as we all know, being the bottom  
23 line, usually, in the Federal budget, is the one that  
24 people look at first for cuts.

25 I must say, though, that in coming back and

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1 looking at the budget marks which were given to NASA,  
2 both in -- for the FY-82 year and for the year we're com-  
3 ing in to, that is the suggested budget mark for the year  
4 FY-83, they have been more generous than any other R and  
5 D agency in Washington.

6 Almost all of the departments and agencies which  
7 do research and development were cut back severely. And,  
8 indeed, we suffered some cuts as well, but not near to  
9 the degree that the other departments and agencies were  
10 cut.

11 And, as a matter of fact, if you look at the  
12 reductions that NASA suffered it is primarily in those  
13 areas where there was a perception, in the Office of Man-  
14 agement and Budget, or in the Administration, that we  
15 were doing work which should more properly be done in  
16 the private sector.

17 Some of those perceptions I do not agree with.  
18 And I'll be arguing very hard to reverse them. But never-  
19 theless it was a cut based on principle or philosophy  
20 rather than a cut based on an across the board research  
21 and development reduction.

22 It is my view we have a great future ahead of  
23 us. NASA has come a long way in the last 25 years, or  
24 24 years, since the agency was created.

25 In fact, if you look back on the accomplishments

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1 of that very short quarter of a century, little less than  
2 a quarter of a century, it is kind of mind boggling to  
3 think of all the things that we have done.

4 And considering the fact that the money we have  
5 spent has been a very small percentage of the -- even  
6 the research and development expenditures of the Federal  
7 Government, I think we can all take very great pride in  
8 looking back on that quarter of a century history.

9 And, in fact, if you look back even further  
10 to the origins of NASA, the old NACA, and this, of course,  
11 is the mother center, because this is where it all began,  
12 as we all know, we can take great pride in what has been  
13 done through those years by NACA and, now, by NASA in  
14 bringing this Nation into a position of preeminence in  
15 aeronautics and space.

16 It is, indeed, a proud history. A history that  
17 I take great pride in being a part of now. And I have  
18 great confidence that we will go forward in the next quart-  
19 er of a century and do even larger things.

20 Now let me talk about where my priorities are  
21 and where I'm coming from.

22 We started out about eight years ago, or a lit-  
23 tle longer than that, but we started into hardware work  
24 about eight years ago on the shuttle. This center has  
25 had quite an impact on that with the work that you have

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1 on the shuttle.

2 We had a very successful flight in April. And  
3 we'll be flying again early next month. And I believe  
4 that the program is in good technical shape. It does re-  
5 quire an awful lot of work. And it's going to require  
6 a great expenditure of money to get it from here to the  
7 operational phase. And that's got to be priority one.

8 Priority two, however, is to make sure that  
9 while we work our way through that heavy period of ex-  
10 penditures on shuttle that we maintain a balance in the  
11 other research programs. And that includes aeronautics,  
12 most especially aeronautics. It includes the space science  
13 and planetary exploration work that we have done so  
14 successfully, and which was just exemplified by the Voy-  
15 ager II flyby. And it includes the other research work  
16 that is done within the NASA family, so that we may still  
17 maintain the balance of programs that has been so success-  
18 ful in making sure that in the future we have covered all  
19 the bases and that we are able to move forward.

20 Beyond that we must look to new starts. And  
21 we have had a dearth of new starts in the last years.

22 And as we all know, the budget, in real terms,  
23 has been coming down to a degree that is sometimes fright-  
24 ening when you look at it from the overall point of view.  
25 But at the same time, we still do have a very significant

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1 sized budget.

2 But I view my priority, after those that I have  
3 mentioned to start to reverse that downward trend, and  
4 maybe start to turn it up a little bit.

5 And in the undoubtedly short period of years  
6 that I will be given in this job, I hope to be able to  
7 reverse that trend. And that is a major objective of mine.  
8 And to start with some new starts again.

9 I have used this quote so many times it's prob-  
10 ably gotten around, but one of my favorite Shakespearean  
11 quotes comes from Henry IV. And it is that part of the  
12 play where the Prince goes to the King. And the Prince,  
13 as you know, was a little wild. Fortunately, he settled  
14 down in later life. But he said to the King, I can call  
15 forth spirits from the vasty deep. And the King thinks  
16 for a moment, and he says, why, so can I. And so can  
17 any man. But will they come when you call them.

18 AUDIENCE: (Laughter.)

19 DR. BEGGS: And I guess that's what you've got  
20 to expect of me, because those spirits are new programs  
21 and new starts. And I'm going to be calling them. And  
22 the question is: will they come?

23 But they will come, I can assure you, if we  
24 continue to do the kinds of things that we have always  
25 been capable of doing in the past.

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1           If we are aggressive in pursuing our programs,  
2 if you give me -- continue to give me the kinds of new  
3 ideas, and new thoughts, and new research programs, that  
4 you have been so capable of doing in the past, if we all  
5 speak with a single voice, as much as can speak with a  
6 single voice -- and in a organization like this, that's  
7 pretty difficult, but if we at least put our minds to  
8 the idea that we must decide where we're going, and put  
9 those programs together in such a way that they are sale-  
10 able -- and make no mistake about it, ladies and gentle-  
11 men, we are in an environment where they must be sold,  
12 it is not enough that it be a good thing to do, it must  
13 be something that the American people and our political  
14 systems perceives is a good thing to do -- then we will  
15 move ahead rapidly in the coming years.

16           And I'm very optimistic about that. We have  
17 done great things in the past at Langley. In going back  
18 over the history of the center in preparation for my visit  
19 down here I found that you have won four Collier trophies.  
20 And having participated in a team, myself, that won a  
21 Collier trophy, I know the dedication and hard work that  
22 goes in to deserving that award. So you have done splen-  
23 did things in the past.

24           In walking around in the short period I've  
25 had this morning, I'm convinced that you are doing

1 splendid things currently. I know that you will continue  
2 to move ahead and do splendid things in the future.

3 And if you do, we'll all have a very happy,  
4 successful, and prosperous future.

5 I will take questions. And I'll stand up here  
6 as long as Don will let me. I'll probably duck some of  
7 them, but don't let that deter you from continuing to  
8 press me.

9 So, with that, thank you very much. And let's  
10 hear your questions.

11 AUDIENCE: (Applause.)

12 MR. BEGGS: I'm sure I didn't turn you off that  
13 much.

14 AUDIENCE: (Laughter.)

15 MR. BEGGS: Back in the back.

16 VOICE: You said there were some of the budget  
17 cuts that you didn't agree with, and you were going to  
18 reclaim her. Could you identify some of those.

19 MR. BEGGS: Well, I got here too late to re-  
20 claim this year.

21 Well, basically, the philosophy that has been  
22 expounded over the -- really this is not new, this has  
23 been expounded upon in the Bureau of the Budget and the  
24 OMB for as long as I can remember. As a matter of fact,  
25 12 years ago I was dealing with a similar situation. The

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1 feeling is that demonstration projects, or programs which  
2 move in to hardware are better left to the industry to  
3 handle instead of being done in the Government.

4 The issue there deals with the question of val-  
5 idation of program. How do you validate a research con-  
6 cept, or how do you validate something which looks good  
7 in the center, and which looks good through an early de-  
8 velopment phase, but requires a flight test to get to  
9 the point where somebody will really pick it up and take  
10 it in to production, or at least base a production pro-  
11 gram on. And it is those programs which, generally, have  
12 been under attack by the old budget examiners from time  
13 immemorial.

14 And this past year, in the Reagan Administration  
15 cuts, those were some of the programs that came to grief.  
16 And I think those programs will also be looked on askance  
17 in the future.

18 There must be a certain amount of validation  
19 of our concepts, otherwise they will not be applied.  
20 And one of the reasons that I think we have moved ahead  
21 in this country, and have done so well in the aeronautics  
22 field, everything from our commercial transports and gen-  
23 eral aviation craft to the high performance military  
24 type aircraft is that we have had those experimental air-  
25 plane programs and demonstration projects which have

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1 validated concepts which enabled them then to move into  
2 production programs. .

3 Those are the prime ones we have to deal with.  
4 There are some of the research programs which move towards  
5 the applications area, which also tend to be looked upon  
6 as being subjects primarily that should be assigned to  
7 the private sector. And there is an argument I think  
8 you can make on some of that. But I think there is also  
9 a counter argument you can make that without the very  
10 profitable relationship that we've had, a partnership,  
11 if you will, with the industry, and exchanging ideas all  
12 the way up to applications, we have benefited greatly as  
13 a nation.

14 As we all know, last year our aeronautics ex-  
15 ports were the largest single item in our balance of trade.  
16 Larger even than agriculture. For the first time we ex-  
17 ceeded the agricultural exports. And that was no acci-  
18 dent. It was a very beneficial partnership between in-  
19 dustry and, primarily, the Government centers operated  
20 by NASA, and to some extent, as well, the military fall-  
21 out, that has generated that very substantial balance of  
22 trade.

23 That's very important for the country.

24 Yeah.

25 VOICE: I'm Ira Abbott, president of local 2755

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1 of the AFGE. And I have two questions.

2 One is do you believe that the budget restric-  
3 tions that we now have will have an impact on our ability  
4 to recruit and train the people that we need.

5 And, two, with the large spectrum of negotia-  
6 tions allowed under the Civil Service Reform Act, what  
7 do you see as the relationship between headquarters and  
8 the centers in the negotiation process.

9 DR. BEGGS: That's a big question.

10 I'll try to duck that.

11 AUDIENCE: (Laughter.)

12 DR. BEGGS: Well, let me try it this way. With-  
13 out any question, a constrained budget situation, if it  
14 impacts the research work that you are doing, has a neg-  
15 ative effect on recruiting young fresh outs into the a-  
16 gency or anywhere else.

17 If you don't have interesting work for them to  
18 do, they will go else where. They will search for the  
19 interesting activity.

20 I don't believe that has as yet happened at  
21 NASA. We still have an enormous number of very interest-  
22 ing and active programs, which I think are very attractive  
23 to the high calibre youngsters that are coming out of  
24 universities these days and out of the graduate schools.

25 And I think we'll get our share. At least the statistics

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1 seem to show that.

2 This is a subject of great interest to me. And  
3 one of the first things I looked into was the question  
4 of how well we were doing in recruiting fresh outs into  
5 the agency.

6 That has two important effects. One is it in-  
7 dicates that we are doing good work, which the young  
8 people feel is important. And that's an important per-  
9 ception for the agency. It's important that we have that,  
10 otherwise I think we can start to question whether we  
11 are doing good work.

12 The second part of it is that we need that in-  
13 fusion of young people into our organization each year,  
14 because if we don't get it year by year, over a period  
15 of time you create gaps in your professional ranks, which  
16 can be very adverse to the generation of ideas and pro-  
17 grams in the future.

18 So I was very interested in looking at that.  
19 And I was encouraged by the fact that we seem to still be  
20 attracting good people, and they seem to be folks who  
21 are motivated, if you will, to do this kind of work.

22 So I'm not overly concerned yet, but I'm getting  
23 concerned. And I think that in our field the pay cap  
24 which has been on is going to cause an increasing amount  
25 of compression in the salaried ranks. And that's bad.

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1           And the various and sundry reforms in the system  
2 have not been carried out quite in the way that they re-  
3 forms were meant to be carried out. And that is not a  
4 healthy situation.

5           And I'm going to be working that problem to see  
6 whether I can help.

7           Unfortunately, I see very little relief.-- I  
8 must be candid about this -- very little relief on the  
9 pay cap this year or next, because the Congress is simp-  
10 ly not going to lift the cap on their own salaries.  
11 And without that happening we're not going to get any  
12 relief in the civil service ranks.

13           But I'm going to be working as best I can.  
14 And, as a matter of fact, I've had some conversations on  
15 the Hill with some of the folks in those committees dis-  
16 cussing this problem with them. They are concerned, I  
17 might add. They don't know quite how to come to grips  
18 with it, because they are under a very strong pressure  
19 from the public not to increase their own salaries.

20           And as I say, absent that, we won't get any  
21 relief for the civil service ranks.

22           But there probably are some things that could  
23 be done, if they would liberalize a few of the regulations  
24 and rules that govern the civil service. And I'm going  
25 to try and give them as many suggestions for that as I

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1 can within the rather rigid constraints that are on the  
2 Office of Personnel Management.

3 Did I duck that satisfactorily?

4 Yes.

5 VOICE: How do you see our growth over the next  
6 20 years in aeronautical research with respect to Euro-  
7 pean and Japanese efforts, say in cryogenic technology  
8 or computational aerodynamics?

9 DR. BEGGS: Well, they're coming fast, as you  
10 know. Last year Airbus Industries sold more commercial  
11 transports than any other company in the world save Boe-  
12 ing.

13 In other words, they outsold both of the others  
14 in this country. And the Europeans, as we all know, are  
15 investing heavily in research, in aeronautical research.  
16 They're putting money into simulators, tunnels, and they  
17 have proven that they will subsidize to a heavy degree  
18 getting into a market. In short, they'll buy a position  
19 in the market. And they are with the Airbus buying a  
20 position in the market.

21 It's hard to tell how much they are subsidizing  
22 the Airbus, because it's scattered through a number of  
23 accounts, and a number of different countries. It's bur-  
24 ied in a number of national budgets.

25 But it is clear that they are subsidizing that

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1 aircraft very heavily. And so they're buying a big, big  
2 piece of the market. And that's of great concern.

3 And now we see the Japanese with that big  
4 computational NAS facility starting and that's of con-  
5 cern as well.

6 And we've got to match that, or we've got to  
7 do more than match it. We've got to do what we've al-  
8 ways done, and that's beat them.

9 We've always been able to outdistance the com-  
10 petition in these areas, once we screw up our courage  
11 to the sticking point and get going. It always takes  
12 us a little while. As a matter of fact, we always start  
13 late on these things.

14 And I think that's true of the NAS. We're go-  
15 ing to start late, because the Japanese are already go-  
16 ing.

17 But I don't think that is as of much concern  
18 as the point that we do it right. And that's one of the  
19 things that's high on my agenda. We're going to do that.  
20 And we're going to do it right. We're going to plan it  
21 properly. And then we'll fund it properly. And get the  
22 money to put it in place.

23 We have not been investing as much money in  
24 our facilities as, probably, we should have over the past  
25 10 years. That's clear.

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1           In particular, we really haven't put enough  
2 money into the business of maintaining and upgrading our  
3 existing facilities, as we probably should have. We've  
4 been deferring maintenance and that's showing up in in-  
5 creasing down time in some places. And that's something  
6 we have to work on as well.

7           And we haven't been putting as many new ones,  
8 getting as many new facilities, research facilities, now,  
9 as we probably should have been doing. And that's high  
10 on my agenda.

11           But I'm not terribly worried that we're not  
12 first. Because, as I say, if you look back on history we  
13 are never first in any of these things. We always wait  
14 until someone else gets going on it and then we come charg-  
15 ing up and have, in the past, always done the job a lit-  
16 tle better.

17           I think that's important that we do continue  
18 to do the job better.

19           But it is of concern. And I think this is one  
20 of the arguments that I'm using on my colleagues in Wash-  
21 ington that our foreign competitors are moving out. They  
22 are moving out fast. And they have proven that they are  
23 willing to spend money even in a very constrained budget  
24 in their case. The Europeans, now, are pleading poverty  
25 in almost every other field, but they are not pleading

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1 poverty in this one. They're spending. And they're de-  
2 termined to get a piece of the market which we have long  
3 dominated. And it's going to come as an awful shock to  
4 us, if we don't do the necessary investment, don't make  
5 the necessary investment, and end up one of these days  
6 finding that we have lost our market.

7 We're going to argue that very hard. And I  
8 think we will win that argument.

9 Over here.

10 VOICE: Do you see any change in the balance  
11 between the developmental work versus fundamental research  
12 that occurs in the NASA centers in the coming future?

13 DR. BEGGS: Well, that's a hard question to  
14 answer, because I think change is a part of that.

15 We have had, you know, ups and downs in the  
16 mix of project work and research work over the years.  
17 This center has, for example, in the past been involved  
18 in some very major programs, like Viking, and has over  
19 the years changed its mix of activity.

20 And I think that's a healthy thing. I think  
21 you do need a certain number -- a certain amount of pro-  
22 gram work. That tends to focus -- help focus research.  
23 And it tends to, I think, give our people a chance to  
24 exercise their talents in a way of applying what they  
25 have done, which is a professionally stretching, mind

1 stretching activity. And important. And so, as I said  
2 earlier, I think it's important that we do the applica-  
3 tions type things, and the space programs, and the var-  
4 ious projects that give us an opportunity to go out and  
5 try out our ideas in the real world, and find out whether  
6 we're on the right track, and to use that experience to  
7 focus on the next step,

8 And so I see a similar kind of mix going on in  
9 the future, with the activity coming and going as each  
10 project reaches its maturity and then goes down.

11 I will continue to be an advocate for those  
12 projects, because I think they are important. And I think  
13 they have an important place.

14 The likelihood is that for the next year or  
15 two, until we get the shuttle operational, that there  
16 will be relatively few new ones. But I think we can look  
17 forward in the next three or four years to a lot of them.

18 Yeah. Back in the back.

19 VOICE: Do you foresee any realignment or cross-  
20 ing of the roles and missions of the various centers?

21 AUDIENCE: (Laughter.)

22 DR. BEGGS: Yes and no.

23 AUDIENCE: (Laughter.)

24 DR. BEGGS: I think the balance that has been  
25 struck in NASA between the activities of the various

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1 centers has been generally a pretty good one. And it has  
2 stood the test of time.

3 There are, as I said just a few minutes ago,  
4 there have been cases where programs have been put into  
5 centers, like Langley, like Ames, and others, and I think  
6 that has had a healthy competitive effect on the agency.  
7 It's been healthy from the point of view of putting a  
8 center, which may have felt it had a lock on an area,  
9 under some competitive pressure and thereby stimulated  
10 their thought processes and their willingness to go out  
11 and do some new things, and, perhaps, rethink their own  
12 roles.

13 And I think to that extent, probably, an ex-  
14 change of some roles and missions is a beneficial thing.  
15 And I think it's worth thinking about.

16 Quite frankly we haven't gotten to that point.  
17 Neither Hans Mark nor myself have reached the point of  
18 thinking through all the implications of that.

19 We have been thinking of some organizational  
20 realignments. And we will be talking about those in the  
21 coming few weeks.

22 But I think the question raises -- which is  
23 really a suggestion -- raises the issue of what should  
24 be done in rethinking and relooking those things, so as  
25 to bring that competitive pressure and bring the mind

1 stretching aspect of that back to a number of our centers.

2 Over here.

3 VOICE: I'm Olaf Storsely from the IPAD office.  
4 There was recently a summer study completed on the --  
5 done by OAST and OSTA, inter-center type of study, related  
6 to the topic computer science key to the space program  
7 renaissance. I wonder if you have been briefed on that  
8 study and if you have some opinions on it?

9 DR. BEGGS: I have not looked at that study in  
10 detail. But it has been laid before me and I will be  
11 looking at it.

12 I do think that that is a very vital area for  
13 the agency. And I think it's one that we've got to keep  
14 constantly up on the step, because it's moving so fast,  
15 and there are so many new things that are becoming pos-  
16 sible, both in the applications of computer science to  
17 aeronautics and space in the project sense and also what  
18 one can do with it in a computational way in doing new  
19 things and designing new tools for research, like the  
20 NAS facility that we talked about earlier.

21 And I think that, you know, this agency, in  
22 a sense, stimulated a lot of the cybernetic work that  
23 has gone on in the last 20 years. And I think that we  
24 have a role in stimulating that kind of research in the  
25 future.

NEAL R. GROSS

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1           And I think we can continue to do that, because  
2 the kinds of things that we are doing, both project-wise  
3 and research-wise, are very, very important adjuncts to  
4 what the folks over in the cybernetic world are thinking  
5 about.

6           So I think -- I guess I would just make the  
7 overview on that. And I will be looking into several  
8 of these studies, including the one that was done on aero-  
9 nautics, which is quite important, too, to see what di-  
10 rections we ought to move.

11           MODERATOR: Why don't we take just one more  
12 question, Jim, if --

13           DR. BEGGS: Okay.

14           Over here.

15           VOICE: Could you comment, sir, on the types of  
16 new starts that are under consideration in the agency  
17 now?

18           DR. BEGGS: Oh, golly.

19           There was a whole list of them. And I don't  
20 know that I can list them off. But they ranged from ev-  
21 erything from the NAS, which was on the list, and is still  
22 on the list, as far as that goes, to the VOIR mission,  
23 which is an approved mission, but unfunded. It's high  
24 on the list.

25           The -- lots of new ideas in aeronautics that were

1 everything from materials kind of research, looking at  
2 the application of composites to commercial transports,  
3 which has been active, but some new work in that area,  
4 to continuation of work in more efficient engine cycles,  
5 to the one that Hans and I are very interested in. And  
6 that's a space station. A permanent presence in space.

7 And both of us, as you undoubtedly know, stated  
8 at our confirmation hearings that we were going to work  
9 hard to get a start in that area over the next few years.

10 And there is some work on that that was on  
11 the list, but there is no -- in my remarks I said keep  
12 sending me good ideas. And I really mean that.

13 But let me assure you, we haven't any dearth  
14 of new ideas at the present time. There is a whole list  
15 as long as my arm. And they all won't fit into the budget,  
16 obviously.

17 But I'm hopeful, again, that we can get some  
18 of them in the budget in the next couple of cycles. And  
19 I think we will.

20 MODERATOR: Jim, I want to express the apprec-  
21 iation of all of us. Thanks for coming.

22 DR. BEGGS: Thank you, very much.

23 AUDIENCE: (Applause.)  
24 - - -  
25